Discrete Applied Mathematics 19 (1988) 415–416
North-Holland

AUTHOR INDEX

Volume 19 (1988)

Agarwal, K.K., see J.D. Benstock 45– 63
Balaban, A.T. and I. Tomescu, Alternating 6-cycles in perfect matchings of graphs representing condensed benzenoid hydrocarbons 5– 16
Basak, S.C., V.R. Magnuson, G.J. Niemi and R.R. Regal, Determining structural similarity of chemicals using graph-theoretic indices 17– 44
Benstock, J.D., D.J. Berndt and K.K. Agarwal, Graph embedding in SYNCHEM2, an expert system for organic synthesis discovery 45– 63
Berndt, D.J., see J.D. Benstock 45– 63
Bertz, S.H., Branching in graphs and molecules 65– 83
Bhatti, F.M. and J.W. Essam, Low density series expansions for backbone properties of percolation clusters 85–112
Cohen, J.E., Threshold phenomena in random structures 113–128
Dress, A.W.M. and T.F. Havel, Shortest-path problems and molecular conformation 129–144
El-Basil, S., Binomial-combinatorial properties of Clar structures 145–156
Essam, J.W., see F.M. Bhatti 85–112
Flapan, E., Symmetries of knotted hypothetical molecular graphs 157–166
Galina, H. and M.M. Syslo, Some applications of graph theory to the study of polymer configuration 167–176
Graovac, A., see I. Gutman 195–203
Gross, R., J.W. Kennedy, L.V. Quintas and M.L. Yarmush, Antigenesis: A cascade-theoretical analysis of the size distributions of antigen–antibody complexes 177–194
Gutman, I., A. Graovac and O.E. Polansky, Spectral properties of some structurally related graphs 195–203
Harary, F. and P.G. Mezey, Embedding and characterization of quantum chemical reaction graphs on two-dimensional orientable surfaces 205–214
Hass, E.C. and P.J. Plath, The principle of valency conservation, 1. The skeleton influence on pericyclic reactions 215–237
Havel, T.F., see A.W.M. Dress 129–144
Hite, G.E., see W.A. Seitz 339–348
Hosoya, H., On some counting polynomials in chemistry 239–257
Jovanovic, A.D., Combinatorial characterization of hexagonal systems 259–270
Kennedy, J.W., see R. Gross 177–194
Klein, D.J., see W.A. Seitz 339–348
Klonowski, W., Random hypergraphs and topological gelation criterion for crosslinked polymer systems 271–288
Lloyd, E.K., Redfield's papers and their relevance to counting isomers and isomerizations 289–304
Magnuson, V.R., see S.C. Basak 17– 44
Mezey, P.G., see F. Harary 205–214
Niemi, G.J., see S.C. Basak 17– 44
Peusner, L., Space-time 'bonds', electromagnetism and graphs 305–315
Plath, P.J., see E.C. Hass 215–237
Polansky, O.E., see I. Gutman 195–203

0166-218X/88/$3.50 ©1988, Elsevier Science Publishers B.V. (North-Holland)

Quintas, L.V., see R. Gross 177–194
Regal, R.R., see S.C. Basak 17– 44
Richelle, J., see R. Thomas 381–396
Rouvray, D.H., The challenge of characterizing branching in molecular species 317–338
Seitz, W.A., D.J. Klein and G.E. Hite, Interacting dimers on a Sierpinski gasket 339–348
Slanina, Z., Chemical graphs enumeration and chemical reactivity: thermodynamic and kinetic considerations 349–365
Sysło, M.M., see H. Galina 167–176
Temperley, H.N.V., New results on the enumeration of non-intersecting random walks 367–379
Thomas, R. and J. Richelle, Positive feedback loops and multistationarity 381–396
Tomescu, I., see A.T. Balaban 5– 16
Yarmush, M.L., see R. Gross 177–194
Živković, T.P., Graphical representation of regular resonance structures and their linear dependence 397–414

CONTENTS

INTRODUCTORY REMARKS (J.W. Kennedy, L.V. Quintas) 1

A.T. BALABAN and I. TOMESCU, Alternating 6-cycles in perfect matchings of graphs representing condensed benzenoid hydrocarbons 5

S.C. BASAK, V.R. MAGNUSON, G.J. NIEMI and R.R. REGAL, Determining structural similarity of chemicals using graph-theoretic indices 17

J.D. BENSTOCK, D.J. BERNDT and K.K. AGARWAL, Graph embedding in SYNCHEM2, an expert system for organic synthesis discovery 45

S.H. BERTZ, Branching in graphs and molecules 65

F.M. BHATTI and J.W. ESSAM, Low density series expansions for backbone properties of percolation clusters 85

J.E. COHEN, Threshold phenomena in random structures 113

A.W.M. DRESS and T.F. HAVEL, Shortest-path problems and molecular conformation 129

S. EL-BASIL, Binomial-combinatorial properties of Clar structures 145

E. FLAPAN, Symmetries of knotted hypothetical molecular graphs 157

H. GALINA and M.M. SYSŁO, Some applications of graph theory to the study of polymer configuration 167

R. GROSS, J.W. KENNEDY, L.V. QUINTAS and M.L. YARMUSH, Antigenesis: A cascade-theoretical analysis of the size distributions of antigen–antibody complexes 177

I. GUTMAN, A. GRAOVAC and O.E. POLANSKY, Spectral properties of some structurally related graphs 195

F. HARARY and P.G. MEZEY, Embedding and characterization of quantum chemical reaction graphs on two-dimensional orientable surfaces 205

E.C. HASS and P.J. PLATH, The principle of valency conservation, 1. The skeleton influence on pericyclic reactions 215

H. HOSOYA, On some counting polynomials in chemistry 239

A.D. JOVANOVIC, Combinatorial characterization of hexagonal systems 259

W. KLONOWSKI, Random hypergraphs and topological gelation criterion for crosslinked polymer systems 271

E.K. LLOYD, Redfield's papers and their relevance to counting isomers and isomerizations 289

Contents

L. PEUSNER, Space-time 'bonds', electromagnetism and graphs 305

D.H. ROUVRAY, The challenge of characterizing branching in molecular species 317

W.A. SEITZ, D.J. KLEIN and G.E. HITE, Interacting dimers on a Sierpinski gasket 339

Z. SLANINA, Chemical graphs enumeration and chemical reactivity: thermodynamic and kinetic considerations 349

H.N.V. TEMPERLEY, New results on the enumeration of non-intersecting random walks 367

R. THOMAS and J. RICHELLE, Positive feedback loops and multistationarity 381

T.P. ŽIVKOVIĆ, Graphical representation of regular resonance structures and their linear dependence 397

AUTHOR INDEX 415